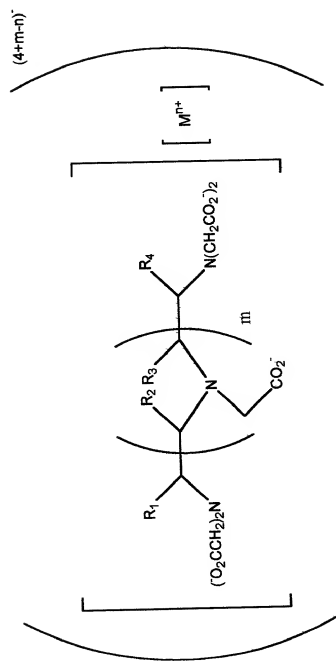


Figure 1



(A)

|                          |                           |                         |                          |                         |                     |                             |                         |                        |                      |                     |                           |                          |                       |                       |                    |                        |                                 |                            |                         |                          |                           |                            |                            |                               |                            |                         |                            |                              |                           |                             |                           |                           |                           |                           |                        |                         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| Be<br>4.003<br>Beryllium | Mg<br>24.305<br>Magnesium | Ca<br>40.078<br>Calcium | Sr<br>87.62<br>Strontium | Ba<br>137.327<br>Barium | Ra<br>226<br>Radium | Al<br>26.981538<br>Aluminum | Ga<br>70.620<br>Gallium | In<br>75.706<br>Indium | Sn<br>118.710<br>Tin | Pb<br>207.2<br>Lead | Bi<br>208.9804<br>Bismuth | Tl<br>204.38<br>Thallium | Po<br>209<br>Polonium | At<br>210<br>Astatine | Rn<br>222<br>Radon | Ce<br>140.12<br>Cerium | Pr<br>140.90765<br>Praseodymium | Nd<br>144.242<br>Neodymium | Pm<br>145<br>Promethium | Sm<br>150.36<br>Samarium | Eu<br>151.964<br>Europium | Gd<br>157.25<br>Gadolinium | Tb<br>158.92532<br>Terbium | Dy<br>162.50015<br>Dysprosium | Ho<br>164.93032<br>Holmium | Er<br>167.259<br>Erbium | Tm<br>168.93002<br>Thulium | Yb<br>173.05448<br>Ytterbium | Lu<br>174.967<br>Lutetium | Sc<br>44.955912<br>Scandium | Y<br>88.905848<br>Yttrium | Zr<br>91.224<br>Zirconium | Nb<br>92.90638<br>Niobium | Mo<br>95.94<br>Molybdenum | Tc<br>98<br>Technetium | Ru<br>101.07<br>Ruthenium | Rh<br>102.90550<br>Rhodium | Pd<br>106.42<br>Palladium | Ag<br>107.8682<br>Silver | Cd<br>112.411<br>Cadmium | Hg<br>200.59<br>Mercury | Ir<br>223.0219<br>Iridium | Pt<br>200.574<br>Platinum | Au<br>196.966569<br>Gold | Hf<br>178.49<br>Hafnium | Ta<br>180.94788<br>Tantalum | W<br>183.84<br>Tungsten | Re<br>186.207<br>Rhenium | Os<br>190.23<br>Osmium | Pt<br>195.083<br>Osmium | Fe<br>55.845<br>Iron | Co<br>58.933195<br>Cobalt | Ni<br>58.6934<br>Nickel | Cu<br>63.546<br>Copper | Zn<br>65.38<br>Zinc | Al<br>26.981538<br>Aluminum | Si<br>28.0855<br>Silicon | P<br>30.973762<br>Phosphorus | S<br>32.06<br>Sulfur | Cl<br>35.453<br>Chlorine | Ar<br>39.948<br>Argon | K<br>39.0983<br>Potassium | Ca<br>40.078<br>Calcium | Sc<br>44.955912<br>Scandium | Ti<br>47.88<br>Titanium | V<br>50.9415<br>Vanadium | Cr<br>51.9961<br>Chromium | Mn<br>54.938044<br>Manganese | Fe<br>55.845<br>Iron | Co<br>58.933195<br>Cobalt | Ni<br>58.6934<br>Nickel | Cu<br>63.546<br>Copper | Zn<br>65.38<br>Zinc | Ga<br>70.620<br>Gallium | Ge<br>72.630<br>Germanium | As<br>74.9216<br>Arsenic | Se<br>78.96<br>Selenium | Br<br>79.904<br>Bromine | Kr<br>83.80<br>Krypton | Rb<br>85.4678<br>Rubidium | Sr<br>87.62<br>Strontium | Y<br>88.905848<br>Yttrium | Zr<br>91.224<br>Zirconium | Nb<br>92.90638<br>Niobium | Mo<br>95.94<br>Molybdenum | Tc<br>98<br>Technetium | Ru<br>101.07<br>Ruthenium | Rh<br>102.90550<br>Rhodium | Pd<br>106.42<br>Palladium | Ag<br>107.8682<br>Silver | Cd<br>112.411<br>Cadmium | In<br>114.818<br>Indium | Sn<br>118.710<br>Tin | Pb<br>207.2<br>Lead | Bi<br>208.9804<br>Bismuth | Po<br>209<br>Polonium | At<br>210<br>Astatine | Rn<br>222<br>Radon | Fr<br>223<br>Francium | Ra<br>226<br>Radium | Ac<br>227<br>Actinium | Th<br>232.0377<br>Thorium | Pa<br>231<br>Protactinium | U<br>238.02891<br>Uranium | Np<br>237<br>Neptunium | Pu<br>244<br>Plutonium | Am<br>243<br>Americium | Cm<br>247<br>Curium | Bk<br>247<br>Berkelium | Cf<br>251<br>Californium | Es<br>252<br>Einsteinium | Fm<br>257<br>Fermium | Md<br>288<br>Mendelevium | No<br>289<br>Nobelium | Lr<br>262<br>Lawrencium | Uu<br>289<br>Ununseptium | Uub<br>289<br>Unbibium | Uut<br>288<br>Ununtrium | Uuh<br>287<br>Ununhexium | Uus<br>286<br>Ununseptium | Uuq<br>285<br>Ununoctium | Uub<br>284<br>Unbibium | Uut<br>283<br>Ununtrium | Uuh<br>282<br>Ununhexium | Uus<br>281<br>Ununseptium | Uuq<br>280<br>Ununoctium | Uub<br>279<br>Unbibium | Uut<br>278<br>Ununtrium | Uuh<br>277<br>Ununhexium | Uus<br>276<br>Ununseptium | Uuq<br>275<br>Ununoctium | Uub<br>274<br>Unbibium | Uut<br>273<br>Ununtrium | Uuh<br>272<br>Ununhexium | Uus<br>271<br>Ununseptium | Uuq<br>270<br>Ununoctium | Uub<br>269<br>Unbibium | Uut<br>268<br>Ununtrium | Uuh<br>267<br>Ununhexium | Uus<br>266<br>Ununseptium | Uuq<br>265<br>Ununoctium | Uub<br>264<br>Unbibium | Uut<br>263<br>Ununtrium | Uuh<br>262<br>Ununhexium | Uus<br>261<br>Ununseptium | Uuq<br>260<br>Ununoctium | Uub<br>259<br>Unbibium | Uut<br>258<br>Ununtrium | Uuh<br>257<br>Ununhexium | Uus<br>256<br>Ununseptium | Uuq<br>255<br>Ununoctium | Uub<br>254<br>Unbibium | Uut<br>253<br>Ununtrium | Uuh<br>252<br>Ununhexium | Uus<br>251<br>Ununseptium | Uuq<br>250<br>Ununoctium | Uub<br>249<br>Unbibium | Uut<br>248<br>Ununtrium | Uuh<br>247<br>Ununhexium | Uus<br>246<br>Ununseptium | Uuq<br>245<br>Ununoctium | Uub<br>244<br>Unbibium | Uut<br>243<br>Ununtrium | Uuh<br>242<br>Ununhexium | Uus<br>241<br>Ununseptium | Uuq<br>240<br>Ununoctium | Uub<br>239<br>Unbibium | Uut<br>238<br>Ununtrium | Uuh<br>237<br>Ununhexium | Uus<br>236<br>Ununseptium | Uuq<br>235<br>Ununoctium | Uub<br>234<br>Unbibium | Uut<br>233<br>Ununtrium | Uuh<br>232<br>Ununhexium | Uus<br>231<br>Ununseptium | Uuq<br>230<br>Ununoctium | Uub<br>229<br>Unbibium | Uut<br>228<br>Ununtrium | Uuh<br>227<br>Ununhexium | Uus<br>226<br>Ununseptium | Uuq<br>225<br>Ununoctium | Uub<br>224<br>Unbibium | Uut<br>223<br>Ununtrium | Uuh<br>222<br>Ununhexium | Uus<br>221<br>Ununseptium | Uuq<br>220<br>Ununoctium | Uub<br>219<br>Unbibium | Uut<br>218<br>Ununtrium | Uuh<br>217<br>Ununhexium | Uus<br>216<br>Ununseptium | Uuq<br>215<br>Ununoctium | Uub<br>214<br>Unbibium | Uut<br>213<br>Ununtrium | Uuh<br>212<br>Ununhexium | Uus<br>211<br>Ununseptium | Uuq<br>210<br>Ununoctium | Uub<br>209<br>Unbibium | Uut<br>208<br>Ununtrium | Uuh<br>207<br>Ununhexium | Uus<br>206<br>Ununseptium | Uuq<br>205<br>Ununoctium | Uub<br>204<br>Unbibium | Uut<br>203<br>Ununtrium | Uuh<br>202<br>Ununhexium | Uus<br>201<br>Ununseptium | Uuq<br>200<br>Ununoctium | Uub<br>199<br>Unbibium | Uut<br>198<br>Ununtrium | Uuh<br>197<br>Ununhexium | Uus<br>196<br>Ununseptium | Uuq<br>195<br>Ununoctium | Uub<br>194<br>Unbibium | Uut<br>193<br>Ununtrium | Uuh<br>192<br>Ununhexium | Uus<br>191<br>Ununseptium | Uuq<br>190<br>Ununoctium | Uub<br>189<br>Unbibium | Uut<br>188<br>Ununtrium | Uuh<br>187<br>Ununhexium | Uus<br>186<br>Ununseptium | Uuq<br>185<br>Ununoctium | Uub<br>184<br>Unbibium | Uut<br>183<br>Ununtrium |
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**Figure 3**

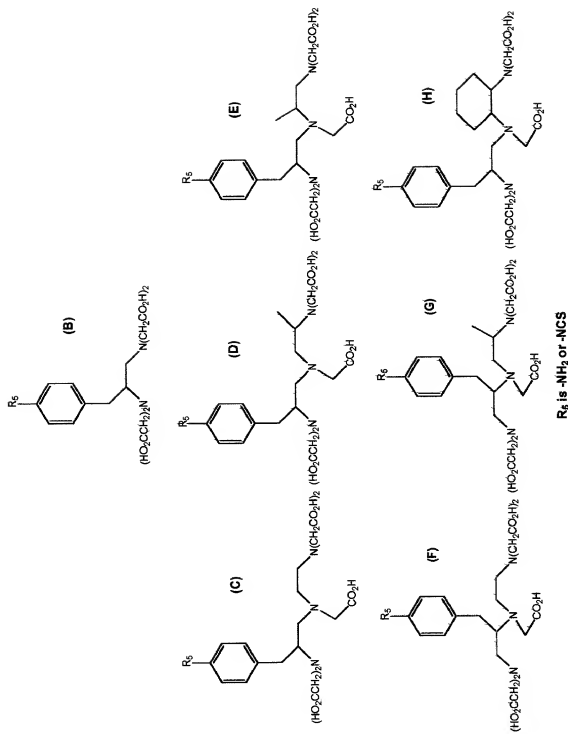


Figure 4

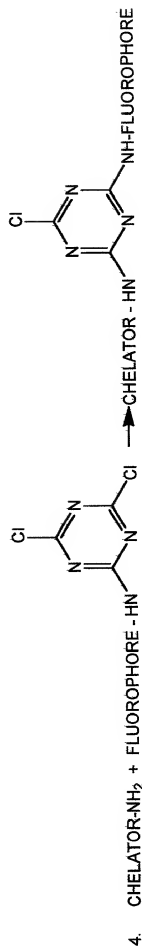
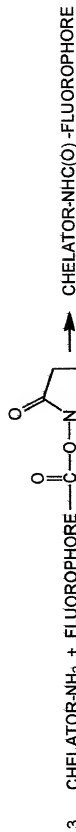
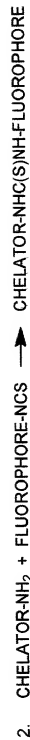
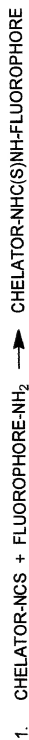


Figure 5

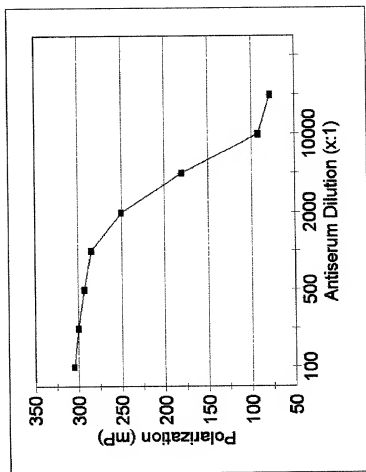


Figure 6

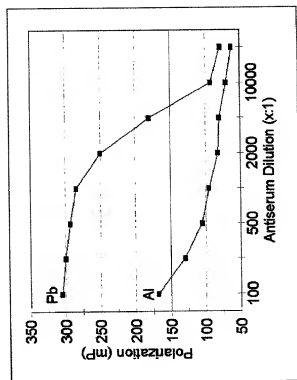
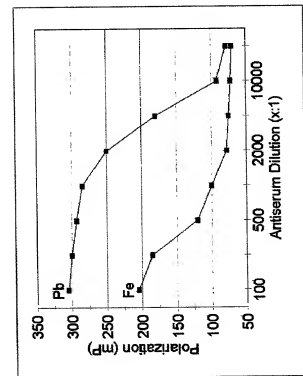


Figure 7

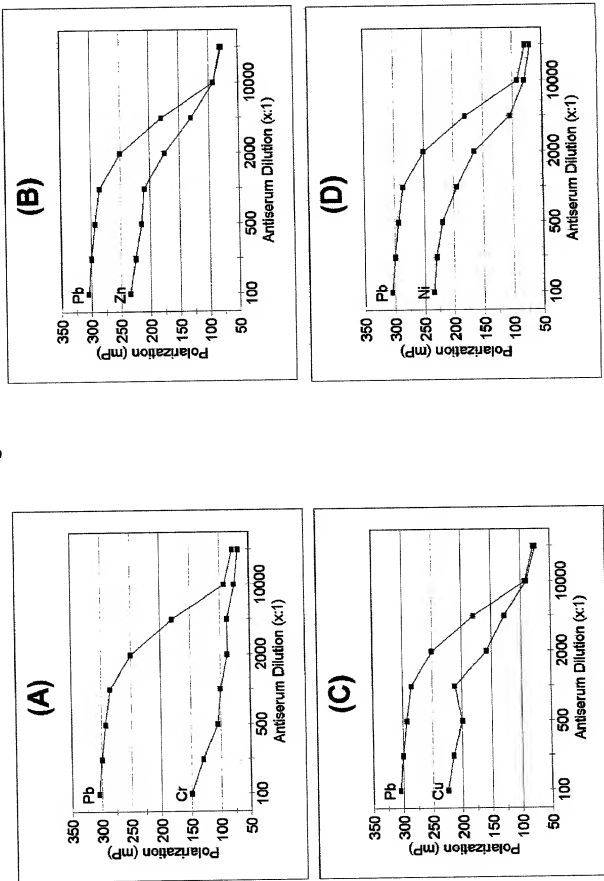


Figure 8

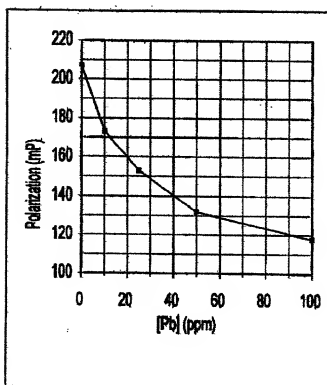




Figure 9

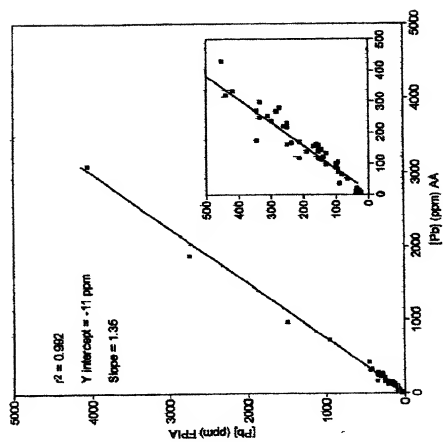


Figure 10

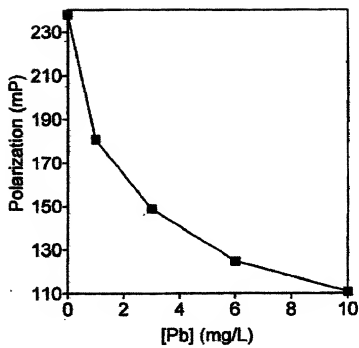


Figure 11

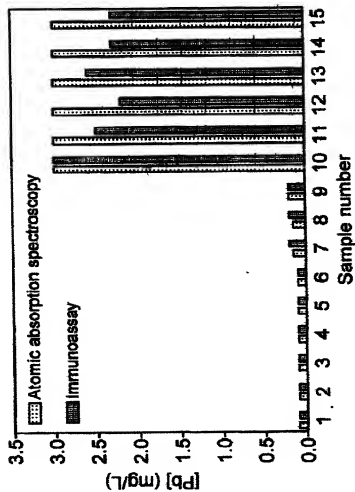
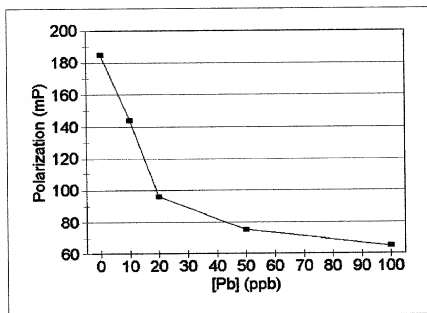


Figure 12



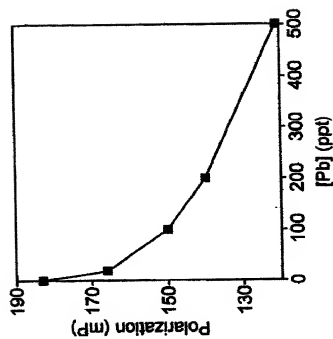


Figure 13